



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/078,537	02/21/2002	Ya'acov Mirsky	005454.00004	3066

22907 7590 10/23/2003

BANNER & WITCOFF
1001 G STREET N W
SUITE 1100
WASHINGTON, DC 20001

EXAMINER

JOHNSON, EDWARD M

ART UNIT	PAPER NUMBER
----------	--------------

1754

8

DATE MAILED: 10/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicant(s)

10/078,537

Applicant(s)

MIRSKY ET AL.

Examiner

Edward M. Johnson

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 11-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 1754

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, claims 1-7 in Paper No. 7 is acknowledged. The traversal is on the ground(s) that the claims have been amended. This is, in part, not found persuasive because Groups III and IV still have a separate utility and status in the art as shown by their different classifications and searches. Group IV, claim 17, was not amended. And Applicant does not appear to offer an argument against restriction of that Group.

However, Groups I and II have been rejoined in view of Applicant's amendment. Groups III and IV, claims 11-16 and 17, remain restricted and those claims therefore now stand withdrawn.

The remaining requirement is still deemed proper and is therefore made FINAL.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure

Art Unit: 1754

sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because the term, "said" is used in line 1. Correction is required. See MPEP § 608.01(b).

Claim Objections

4. Claim 3 is objected to because of the following informalities: line 3, "alkaline metals" appears to be incorrect. Examiner suggests --alkali metals--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 4, "the coagulation of silica particles" lacks antecedent basis.

Art Unit: 1754

Claim 2, lines 5-6, "the value at which precipitation of titanium hydroxide occurs" lacks antecedent basis.

Claims 2 and 17, "said second alkaline agent" lacks antecedent basis.

Claim 3 appears to contain an improper and/or unclear Markush group. Examiner suggests replacing "and carbonates of alkaline metals or alkaline earth metals" with -- carbonates of alkali metals, and carbonates of alkaline earth metals--.

Claim 4, "the alkaline agent used in step c)" lacks antecedent basis. Examiner suggests --the alkaline agent used in step b)--.

Claim 5 appears to contain an improper Markush group. Examiner suggests replacing "chosen from among" with -- selected from the group consisting of-- and clearly connecting the group members with inclusive language, -- and--.

Claim 9, "the same composition at different points" lacks antecedent basis.

Claim 13, "the binding" lacks antecedent basis. Examiner suggests --the binder--.

Claim Rejections - 35 USC § 102

Art Unit: 1754

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1 and 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Land US 3,841,879.

Regarding claim 1, Land '879 discloses a method for making silica-containing titanium dioxide comprising providing titanium dioxide (see abstract and column 2, lines 27-30) and reacting with silica sol under conditions to prevent agglomeration (see column 6, lines 1-10), and drying (see column 6, lines 25-34 and column 5, lines 27-37).

Regarding claim 5, Land '879 discloses preventing agglomeration by treatment with sodium ions (see column 6, lines 3-5) and a pH above 12 (see column 5, lines 19-36).

Regarding claims 6-7, Land '879 discloses dry blended titanium dioxide and adding as solution (see column 10, lines 63-66).

9. Claims 1 and 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakahara et al. US 5,139,980.

Art Unit: 1754

Regarding claim 1, Nakahara '980 discloses a method for production of silica-titania particles (abstract, Example 8) comprising producing a titania starting material and reacting with a silica sol (see Example 8 and column 4, lines 11-15) under conditions which prevent coagulation using ammonia (see Example 8).

Regarding claim 5, Nakahara '980 discloses treatment with ammonia (see Example 8).

Regarding claims 6-7, Nakahara '980 discloses a mixed slurry solution (see Example 8).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 8-10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Land '879.

Land '879 discloses a method for making silica-containing titanium dioxide comprising providing titanium dioxide (see abstract and column 2, lines 27-30) and

Art Unit: 1754

reacting with silica sol under conditions to prevent agglomeration (see column 6, lines 1-10), drying (see column 6, lines 25-34 and column 5, lines 27-37), and dry blended titanium dioxide and adding as solution (see column 10, lines 63-66).

12. Claims 8-10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Nakahara '980.

Nakahara '980 discloses a method for production of silica-titania particles (abstract, Example 8) comprising producing a titania starting material and reacting with a silica sol (see Example 8 and column 4, lines 11-15) under conditions which prevent coagulation using ammonia (see Example 8), and a mixed slurry solution (see Example 8).

13. In the event any differences can be shown for the product of the product-by-process claims 8-10, as opposed to the product taught by Land '879 and/or Nakahara '980, such differences would have been obvious to one of ordinary skill in the art at the time the invention was made as a routine modification of the product in the absence of a showing of unexpected results; see also In re Thorpe, 227 USPQ 964 (Fed.Cir. 1985).

Allowable Subject Matter

Art Unit: 1754

14. Claims 2-4 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

15. The following is a statement of reasons for the indication of allowable subject matter: It would not have been obvious to one of ordinary skill in the art at the time the invention was made to dissolve a precursor of a second alkaline agent in the solution, causing generation of a second alkaline agent, to precipitate titanium hydroxide in the process of the instant claim 2.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Crawford et al. US 5,030,286 discloses a method for making silica-titania comprising an a slurry precipitation process (see abstract, Examples, and column 7, lines 25-30).

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M. Johnson whose telephone number is 703-305-0216. The examiner can normally be reached on M-F 6:30-4:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S.

Art Unit: 1754

Silverman can be reached on 703-308-3837. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

EMJ


STANLEY S. SILVERMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700